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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,258	06/19/2001	Takashi Nishioka	209989US0	9566

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EXAMINER

THORNTON, YVETTE C

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/883,258

Applicant(s)

NISHIOKA ET AL.

Examiner

Yvette C. Thornton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 3-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is written in reference to application number 09/883,258 filed on June 19, 2001 and published as US 2002/0018958 A1 on February 14, 2002.

Response to Amendment

1. Claims 1-27 are currently pending. Claims 3-13 are directed to a non-elected invention and stand withdrawn from consideration.

Election/Restrictions

2. This application contains claims 3-13 drawn to an invention nonelected with traverse in Paper No. 6 [10152002]. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01. The election requirement was made final in the non-final rejection of Paper No. 7 [12262002].

Notice

3. Claims 1-2 and 14-27 contain intended use language. Intended use recitations and other types of functional language cannot be entirely disregarded. However, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); In re Otto, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963). (MPEP 2111.02)
4. Claims 14-15, 19 and 23-27 are product-by-process claims. The product of claims 14 and 15, which is a seal, is obtained by engraving with laser processing a polymer composition. The product of claims 19 and 23, which is a composition, is obtained by kneading a polymer and

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heating the formed composition. More specifically, the said claims recite method limitations that do not further define the material. Therefore, any method may be used to make the material. Consequently, the burden shifts to Applicant to provide evidence of an unobvious difference between the claimed product and the prior art. Furthermore, "The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 180 USPQ 324,326 (CCPA 1974), see MPEP 2113.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 14-17, 20-21, 24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kozma et al. (US 6,242,503 B1). Kozma teaches polymer articles including a mixture of maleic anhydride grafted component and an ethylene-vinyl acetate (EVA) copolymer. A portion of the mixture is sufficiently crosslinked to form a flexible polymer article. The mixture can be foamed or non-foamed. The crosslinking can be peroxide, silane crosslinking, radiation crosslinking or combinations thereof (c. 1, l. 35-54). The taught EVA copolymer can have a vinyl acetate content of preferably 15-50% (i.e., ethylene content of 50-85%) (c. 5, l. 30-63). A component of the taught EVA is grafted with maleic anhydride, which is typically accomplished in the presence of an organic peroxide (c. 7, l. 18-45). The said peroxide can be

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selected based on peroxide characteristics such as the decomposition half-life at processing temperature and the residence time in the specific reaction process equipment (c. 7, l. 46-54). The maleic anhydride grafted component is blended with EVA and cross-linking agents to form a mixture (c. 8, l. 45-64). Other resins, foaming agents, particulates, fillers to reinforce, stabilizers etc. can be added to the said mixture (c. 8, l. 65-c. 9, l. 8). Foaming agents can be included in the mixture to produce foamed articles (c. 9, l. 9-47). Crosslinking of the mixture can aid in the formation of desirable foamed and non-foamed materials. Crosslinking can take place prior to, during, or after expansion of the foam (c. 9, l. 48-53). The crosslinking agent can be a radical generating species, for example, a peroxide such as 1,1-di(t-butylperoxy)cyclohexane, 2,2'-bis(t-butylperoxy)diisopropylbenzene, t-butylperbenzoate, and t-butyl peroxide (c. 10, l. 62-c. 11, l. 4). It is the examiner's position that 2,2'-bis(t-butylperoxy)diisopropylbenzene is structurally equivalent to the claimed component 1,3-bis(t-butylperoxyisopropyl)benzene. Although Kozma fails to exemplify the use of the said peroxides, one of ordinary skill in the art would readily envisage a composition wherein 1,1-di(t-butylperoxy)cyclohexane, 2,2'-bis(t-butylperoxy)diisopropylbenzene, t-butylperbenzoate, or t-butyl peroxide is used as the taught crosslinking agent.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 18-19, 22-23, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozma et al. (US 6,242,503 B1) as applied to claims 1-2, 14-17, 20-21, 24 and 26 above, and further in view of Ellul et al. (US 5,656,693 A). Kozma teaches all the limitations of the instant claims except it fails to explicitly discuss specific examples of the taught fillers and other additives, which can be used in the taught invention. Kozma clearly teaches that other resins, foaming agents, particulates, fillers to reinforce, stabilizers etc. can be added to the said mixture (c. 8, l. 65-c. 9, l. 8).

Ellul teaches that those of ordinary skill in the art would understand that additives such as oils, plasticizers, fillers, foaming agents, antioxidants and other components necessary for the processing or end use properties, can be included without departing from the scope of the invention (c. 2, l. 63-67). Fillers can be inorganic fillers such as calcium carbonate, clay, silica, talc, titanium dioxide or carbon black (c. 7, l. 53-c. 8, l. 4). Rubber process oils have particular ASTM designations depending on whether they fall in class of paraffinic, naphthenic or aromatic process oils. The type of process oil utilized will be as customarily used in conjunction with the rubber component. Ellul serves to establish what is well known and conventional in the art. One of ordinary skill in the art would have been motivated by the teachings of Kozma to used any well known and conventional additives, such as those disclosed by Ellul, in the taught composition in order to enhance processing or end use properties.

Response to Arguments

9. Applicant's arguments filed November 23, 2004 have been fully considered but they are not persuasive. Applicants have amended the pending claims to eliminate the peroxide choices of 1,1-di(t-butylperoxy)cyclohexane and t-butylperbenzoate, which were disclosed by Kozma.

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Applicants also argue that t-butyl peroxide is not equivalent to t-butylhydroperoxide as set forth by the examiner. The examiner agrees. However, Kozma, as discussed above, teaches the use of 2,2'-bis(t-butylperoxy)diisopropyl benzene, as a choice for the taught peroxide. It is the examiner's position that 2,2'-bis(t-butylperoxy) diisopropylbenzene is structurally equivalent to the claimed component 1,3-bis(t-butylperoxyisopropyl) benzene. Although Kozma fails to exemplify the use of the said peroxides, one of ordinary skill in the art would readily envisage a composition wherein 2,2'-bis(t-butylperoxy)diisopropyl benzene is used as the taught crosslinking agent. Therefore, the rejection of the instant claims over Kozma is maintained.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette C. Thornton whose telephone number is 571-272-1336.

The examiner can normally be reached on Monday-Thursday 8-6:30.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Yvette Clarke Thornton
Primary Examiner
Art Unit 1752

yct
February 22, 2005